

WHAT IS CLAIMED IS:

1. A prepay telecommunications system, comprising:
  - a prepay call management platform being coupled to a telecommunications carrier switch; and
  - 5 a customer database coupled to the prepay call management platform for storing prepay customer data.
- 10 2. The prepay telecommunications system, as set forth in claim 1, further comprising a plurality of customer interface facilities coupled to the prepay call management platform for accepting and automatically updating the customer database with prepay customer data.
- 15 3. The prepay telecommunications system, as set forth in claim 2, wherein the plurality of customer interface facilities comprises:
  - a clearinghouse in communication with the prepay call management platform; and
  - 20 a plurality of replenishment units coupled to the clearinghouse for activating a customer prepay account and receiving replenishing funds to a customer prepay account.
- 25 4. The prepay telecommunications system, as set forth in claim 2, where the plurality of customer interface facilities each comprises a log of customer transaction data.
- 30 5. The prepay telecommunications system, as set forth in claim 2, where the plurality of customer interface facilities each comprises a data card reader for automatically reading deposit cards issued to each customer.

6. The prepay telecommunications system, as set forth in claim 1, further comprising a roaming platform being coupled to a second telecommunications carrier switch and further in communication with the prepay call management platform.

7. The prepay telecommunications system, as set forth in claim 1, further comprising at least one roaming platform being coupled to at least one telecommunications carrier switch and further in communication with the prepay call management platform.

8. The prepay telecommunications system, as set forth in claim 1, further comprising:

additional prepay call management platforms each being coupled to and co-located with a telecommunications carrier switch and being in communications with one another; and  
at least one roaming platform being coupled to and co-located with at least one telecommunications carrier switch and further in communications with the prepay call management platforms.

9. The prepay telecommunications system, as set forth in claim 1, wherein the prepay call management platform comprises:

a switch matrix coupled to the telecommunications carrier switch for receiving calls therefrom; and  
a call processor coupled to the switch matrix for monitoring prepay calls and playing pre-recorded voice announcements.

10. The prepay telecommunications system, as set forth in claim 9, wherein the prepay call management platform further comprises a database server coupled to the customer database.

5

11. The prepay telecommunications system, as set forth in claim 1, wherein the telecommunications carrier switch is a wireless switch.

10

12. The prepay telecommunications system, as set forth in claim 1, wherein the prepay call management platform is coupled to the telecommunications carrier switch by a T1 span.

15

13. The prepay telecommunications system, as set forth in claim 1, wherein the prepay call management platform is coupled to the telecommunications carrier switch by an SS7 link.

20

14. The prepay telecommunications system, as set forth in claim 1, wherein the prepay call management platform is coupled to the customer interface facilities by a frame relay network.

25

15. The prepay telecommunications system, as set forth in claim 8, wherein the prepay call management platforms are coupled to one another by a frame relay network.

30

16. The prepay telecommunications system, as set forth in claim 8, wherein the prepay call management platforms and roaming platforms are coupled to one another by a frame relay network.

17. The prepay telecommunications system, as set forth in claim 3, wherein the clearinghouse is coupled to the prepay call management platforms by a frame relay network.

5

18. The prepay telecommunications system, as set forth in claim 3, wherein the replenishment units are coupled to the clearinghouse by dial up connections.

10

19. The prepay telecommunications system, as set forth in claim 1, wherein the prepay call management platform includes a call duration timer for determining when a maximum allowable call duration for a prepay call has lapsed.

15

20. The prepay telecommunications system, as set forth in claim 9, wherein the call processor includes a call duration timer for determining when a maximum allowable call duration for a prepay call has lapsed.

21

21. A prepay telecommunications system, comprising:  
a prepay call management platform being coupled to a  
telecommunications carrier switch;  
a customer database coupled to the prepay call  
management platform for storing prepay customer data; and  
5 a plurality of customer interface facilities coupled  
to the prepay call management platform for accepting  
customer prepayment and immediately updating the customer  
database in response thereto.
- 10 22. The prepay telecommunications system, as set  
forth in claim 21, wherein the plurality of customer  
interface facilities comprises:  
15 a clearinghouse in communications with the prepay call  
management platform; and  
a plurality of replenishment units coupled to the  
clearinghouse for activating a customer prepay account and  
receiving replenishing funds to a customer prepay account.
- 20 23. The prepay telecommunications system, as set  
forth in claim 21, where the plurality of customer  
interface facilities each comprises a log of customer  
transaction data.
- 25 24. The prepay telecommunications system, as set  
forth in claim 21, further comprising a roaming platform  
being coupled to a second telecommunications carrier switch  
and further in communications with the prepay call  
management platform.
- 30

25. The prepay telecommunications system, as set forth in claim 21, further comprising at least one roaming platform being coupled to at least one telecommunications carrier switch and further in communications with the 5 prepay call management platform.

26. The prepay telecommunications system, as set forth in claim 21, further comprising:

10 additional prepay call management platforms each being coupled to and co-located with a telecommunications carrier switch and being in communications with one another; and 15 at least one roaming platform being coupled to and co-located with at least one telecommunications carrier switch and further in communications with the prepay call management platforms.

27. The prepay telecommunications system, as set forth in claim 21, wherein the prepay call management platform comprises:

20 a switch matrix coupled to the telecommunications carrier switch for receiving calls therefrom; and a call processor coupled to the switch matrix for monitoring prepay calls and playing pre-recorded voice announcements.

25 28. The prepay telecommunications system, as set forth in claim 27, wherein the prepay call management platform further comprises a database server coupled to the customer database.

30 29. The prepay telecommunications system, as set forth in claim 21, wherein the telecommunications carrier switch is a wireless switch.

30. The prepay telecommunications system, as set forth in claim 21, wherein the prepay call management platform is coupled to the telecommunications carrier switch by a T1 span.

5

31. The prepay telecommunications system, as set forth in claim 21, wherein the prepay call management platform is coupled to the telecommunications carrier switch by an SS7 link.

10

32. The prepay telecommunications system, as set forth in claim 21, wherein the prepay call management platform is coupled to the customer interface facilities by a frame relay network.

15

33. The prepay telecommunications system, as set forth in claim 26, wherein the prepay call management platforms are coupled to one another by a frame relay network.

20

34. The prepay telecommunications system, as set forth in claim 26, wherein the prepay call management platforms and roaming platforms are coupled to one another by a frame relay network.

25

35. The prepay telecommunications system, as set forth in claim 22, wherein the clearinghouse is coupled to the prepay call management platforms by a frame relay network.

30

36. The prepay telecommunications system, as set forth in claim 22, wherein the replenishment units are coupled to the clearinghouse by dial up connections.

37. The prepay telecommunications system, as set forth in claim 21, wherein the prepay call management platform includes a call duration timer for determining when a maximum allowable call duration for a prepay call 5 has lapsed.

38. The prepay telecommunications system, as set forth in claim 27, wherein the call processor includes a call duration timer for determining when a maximum 10 allowable call duration for a prepay call has lapsed.

39. A method for live call management of a prepay call, comprising the steps of:
- recognizing a prepay call at a telecommunications carrier switch;
  - 5 routing the prepay call to a prepay call management platform coupled to the telecommunications carrier switch;
  - looking up customer account balance associated with the prepay call in a customer data database;
  - 10 determining the maximum allowable call duration in response to the customer account balance;
  - releasing the prepay call to telecommunications carrier switch for line termination;
  - starting a call duration timer;
  - monitoring the prepay call for the call duration timer reaching the maximum allowable call duration; and
  - 15 disconnecting the call in response to the call duration timer reaching the maximum allowable call duration.
- 20 40. The method, as set forth in claim 39, wherein the step of recognizing a prepay call comprises the step of recognizing a mobile identification number associated with the prepay call.
- 25 41. The method, as set forth in claim 39, wherein the step of recognizing a prepay call comprises the step of recognizing a customer group office code of a mobile identification number associated with the prepay call being within a predetermined range.
- 30 42. The method, as set forth in claim 39, further comprising the steps of:
- monitoring the prepay call for call completion; and
  - disconnecting the call in response thereto.

43. The method, as set forth in claim 39, further comprising the steps of:

determining an amount expended by the prepay call immediately in response to call disconnection; and

5 immediately deducting the amount from the customer account balance.

44. The method, as set forth in claim 39, further comprising the steps of:

10 accepting a customer prepayment associated with the customer account;

immediately relaying prepayment data to the prepay call management platform; and

15 immediately updating the customer account balance in response to receiving the prepayment data.

45. The method, as set forth in claim 39, further comprising the step of recognizing a prepay call at a telecommunications carrier wireless switch.

46. A method for live call management of a prepay call, comprising the steps of:

recognizing a roaming call at a telecommunications carrier switch;

5 routing the roaming call to a roaming platform coupled to the telecommunications carrier switch;

recognizing the roaming call being associated with a prepay account at a home prepay call management platform;

10 looking up customer account balance associated with the roaming call in a customer data database coupled to the home prepay call management platform;

determining the maximum allowable call duration in response to the customer account balance;

releasing the roaming call to the roaming platform;

15 releasing the roaming call to the telecommunications carrier switch for line termination;

starting a call duration timer;

monitoring the roaming call for the call duration timer reaching the maximum allowable call duration; and

20 disconnecting the roaming call in response to the call duration timer reaches the maximum allowable call duration.

47. The method, as set forth in claim 46; wherein the step of recognizing the roaming call being associated with a prepay account comprises the step of recognizing a mobile identification number associated with the roaming call.

48. The method, as set forth in claim 46, wherein the step of recognizing the roaming call being associated with a prepay account comprises the step of recognizing a customer group office code of a mobile identification number associated with the roaming call being within a predetermined range.

49. The method, as set forth in claim 46, further comprising the step of verifying that roaming is allowed for the prepay customer account.

5 50. The method, as set forth in claim 46, further comprising the steps of:

monitoring the roaming call for call completion; and disconnecting the call in response thereto.

10 51. The method, as set forth in claim 46, further comprising the steps of:

determining an amount expended by the roaming call immediately in response to call disconnection; and

15 immediately deducting the amount from the customer account balance.

52. The method, as set forth in claim 46, further comprising the steps of:

20 accepting a customer prepayment associated with the customer account;

immediately relaying prepayment data to the prepay call management platform; and

immediately updating the customer account balance in response to receiving the prepayment data.

25

53. The method, as set forth in claim 46, further comprising the step of recognizing a roaming call at a telecommunications carrier wireless switch.

30